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MEXICAN BEAN BEETLE



a, Adult beetle; *b*, eggs; *c*, larva; *d*, pupa (or resting stage); *e*, bean leaf showing typical feeding injury. (About 2½ times natural size.)

(See other side for life history and control)

MEXICAN BEAN BEETLE

(*Epilachna varivestis* Muls.)

Life History

The Mexican bean beetles overwinter in the adult or beetle stage, usually in woodlands near bean fields. They leave their winter quarters in the spring, and the female beetles lay their eggs on the under side of the bean leaves. These eggs hatch in from 5 to 14 days. The resulting larvae feed principally on the under side of the bean leaves. The larva grows rapidly, passing through four different stages, or instars, similar in appearance except that each stage is larger than the preceding one. It reaches full growth in from 20 days to 5 weeks. When full-grown the larva attaches itself to the under surface of the leaf on which it has been feeding, or to some nearby plant or object, and changes to the pupa or inactive stage. After a period of about 10 days the adult beetle emerges from the pupa. Within 2 weeks the female beetle is ready to deposit eggs for another brood.

Control

Spray or dust with derris, cube, or cryolite. Any of the following insecticides applied to the beans so as to *cover the under side of the leaves thoroughly* will protect the plants (spraying has given better results than dusting).

Sprays

To prepare a derris or cube spray, use finely ground derris or cube root (4-percent rotenone content) at the rate of one-half ounce (3 level tablespoonfuls) to 1 gallon of water; or 1½ ounces (10 level tablespoonfuls) to 3 gallons; or 1½ pounds to 50 gallons.

To prepare a cryolite spray, use 1 ounce (3 level tablespoonfuls) of cryolite to 1 gallon of water; or 3 ounces (9 level tablespoonfuls) to 3 gallons; or 3 pounds to 50 gallons.

Dusts

To prepare a derris or cube dust, containing 0.5 percent of rotenone, use 10 ounces of finely ground derris or cube root (4-percent rotenone content) to 4 pounds 6 ounces of diluent (finely ground talc, clay, sulphur, tobacco, gypsum, or other powder, except lime); or 12½ pounds to 87½ pounds of the diluent.

To prepare a cryolite dust, use 3 pounds of cryolite to 2 pounds of diluent (finely ground talc or sulphur); or 60 pounds of cryolite to 40 pounds of the diluent.

The first application of insecticide (spray or dust) should be made when Mexican bean beetles are found in the field or when eggs become numerous on the under side of the leaves. Repeat every week or 10 days if the insects are numerous.

Caution: Cryolite should not be applied to beans after the pods begin to form.

8-10790

June 1937

U. S. Government Printing Office

For sale by the Superintendent of Documents, Washington, D. C.—Price 5 cents

